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Rocket propulsion pioneer retires from directorate

by Jeffrey Pearce, Propulsion Directorate

Corley

WRIGHT-PATTERSON AFB, OHIO — Dr. Robert C. Corley, the Senior Scientist at the Propulsion Directorate's facilities at Edwards AFB, retired from government service on June 2.

Corley spent more than 37 years at the lab in a variety of positions while leaving a trail of scientific accomplishments behind him. Among his accomplishments were propellant formulations that have minimal smoke in their exhaust, which helps tactical rockets to surprise their target.

He also led efforts to identify and formulate solid propellant binders, the materials that hold oxidizers and fuel together in a rocket, that are stable, strong, and able to withstand very cold temperatures.

He is credited with pushing the development of the resulting polymer known as hydroxyl terminated polybutadiene, which is currently used in almost all US and foreign solid rocket weapon systems.

Following these efforts, he continued his leadership of research to enhance rocket propellant performance. That research, called High Energy Density Matter, has already provided some world-firsts by the lab.

His leadership skills were again applied to the Integrated High Payoff Rocket Propulsion Technology Program, a national program involving the military services, NASA, and the rocket industry to enhance and double rocket propulsion performance and reliability while reducing costs.

His leadership and technical expertise, evidenced by more than 25 technical publications and eight patents or inventions, have been said to have significantly advanced the nation's rocket propulsion technology. **@**